

AUTOMOTIVE NOISE, VIBRATION AND HARSHNESS

This certificate program provides fundamental principles of acoustics and vibration theories, with emphasis on the applications of these principles to practical vehicle NVH problems. It covers basics of vehicle dynamics, free and forced vibration systems, acoustic wave propagations and transmission, acoustic interior trim and floor covering designs and analysis including Statistical Energy Analysis (SEA) technology, plus sound quality issues and vehicle audio system designs. (12 credit hours)

Certificate offered on Campus and via Distance Learning.

Coursework Requirements

Code	Title	Credit Hours
Please choose four courses to complete the required 12 credit hours.		
AENG 547 or ME 547	Automotive Powertrains I	3
AENG 550	Design of Automotive Chassis	3
AENG 579 or ME 579	Aerodynamics of Road Vehicles	3
ME 540	Mechanical Vibrations	3
ME 543	Vehicle Dynamics	3
ME 545	Acoustics and Noise Control	3
ME 548	Automotive Powertrains II	3
ME 549	Mechanical Wave Vibrations	3
ME 570	Powertrain NVH of Electrified Vehicles	3